

Attorney's Docket No.: 07148-063003 / A15-505.35

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lorin R. DeBonte, et al. Art Unit : 1638
Serial No. : 09/771,904 Examiner : E. McElwain
Filed : January 29, 2001
Title : FATTY ACID DESATURASES AND MUTANT SEQUENCES THEREOF

Commissioner for Patents
Washington, DC 20231

RESPONSE TO RESTRICTION REQUIREMENT

Responsive to the action mailed September 27, 2002, Applicants elect the invention of Group I drawn to a nucleic acid fragment of a delta-12 desaturase gene. The election is made with traverse.

Applicants disagree with the grouping of the claims. Applicants submit that group I also should contain claims 7-9, 11, 16-19, and 35-40. Each of these claims is drawn to delta-12 desaturase nucleic acids or *Brassicaceae* and *Helianthus* plants containing delta-12 desaturase nucleic acids. The nucleotide sequences of SEQ ID NO:11 and SEQ ID NO:15, which are recited in claims 11, 35, and 36, represent mutant D and F forms of the delta-12 desaturase gene, respectively. The amino acid sequences of SEQ ID NO:12 and SEQ ID NO:16, which are recited in claims 7-9 and 11, represent mutant D and F forms of the delta-12 desaturase polypeptide, respectively. Each mutation within the D and F forms of the delta-12 desaturase gene renders each gene product non-functional. See, page 8, line 23 through page 9, line 8 of the specification. Furthermore, the amino acid sequences of SEQ ID NO:12 and SEQ ID NO:16 have about 98% identity when aligned using the Clustal algorithm (see attached alignment). Thus, a search for delta-12 desaturase nucleic acids would uncover art relevant to nucleic acids encoding both the D and F forms of the delta-12 desaturase. Thus, there would be no undue search burden by including claims 7-9, 11, and 35-36 within Group I.

CERTIFICATE OF TRANSMISSION BY FACSIMILE

I hereby certify that this correspondence is being transmitted by facsimile to the Patent and Trademark Office on the date indicated below.

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Furthermore, while *Brassicaceae* and *Helianthus* plants are distinct plant species, a search for plants containing a mutant delta-12 desaturase gene would uncover art relevant to each of these species. Thus, there would be no undue search burden in including claims 16-19 and 37-40 within Group I.

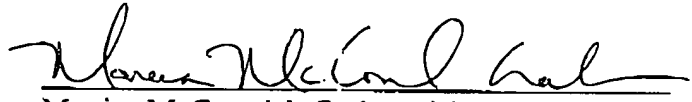
In light of the above, Applicants submit that claims 7-9, 11, 16-19, and 35-40 should be included within Group I.

No fee is due as this response is being filed before the end of the shortened statutory period. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: _____

10/28/02



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